various modifications may be implemented by those skilled in the art without departing from the scope and spirit of the invention. Those skilled in the art could implement various other feature combinations without departing from the scope and spirit of the invention.

1. A method comprising:

extracting one or more patches associated with a candidate malignant lesion from one or more medical images;

classifying the candidate malignant lesion as being a true positive detection of a malignant lesion or a false positive detection of the malignant lesion based on the one or more extracted patches using a trained machine learning network; and

outputting results of the classification.

2. The method of claim **1**, wherein extracting one or more patches associated with a candidate malignant lesion from one or more medical images comprises:

extracting a plurality of patches having different fields of view from the one or more medical images.

3. The method of claim **2**, wherein extracting a plurality of patches having different fields of view from the one or more medical images comprises:

cropping the one or more medical images at different dimensions.

4. The method of claim **1**, wherein extracting one or more patches associated with a candidate malignant lesion from one or more medical images comprises:

extracting a patch depicting the candidate malignant lesion from a particular image of the one or more medical images.

5. The method of claim **1**, wherein extracting one or more patches associated with a candidate malignant lesion from one or more medical images comprises:

extracting patches from images of the one or more medical images that neighbor the particular image.

6. The method of claim **1**, further comprising:

detecting the candidate malignant lesion in the one or more medical images using a machine learning based detection network.

7. The method of claim **1**, wherein the one or more medical images comprises multi-parametric magnetic resonance images.

8. An apparatus, comprising:

means for extracting one or more patches associated with a candidate malignant lesion from one or more medical images;

means for classifying the candidate malignant lesion as being a true positive detection of a malignant lesion or a false positive detection of the malignant lesion based on the one or more extracted patches using a trained machine learning network; and

means for outputting results of the classification.

9. The apparatus of claim **8**, wherein the means for extracting one or more patches associated with a candidate malignant lesion from one or more medical images comprises:

means for extracting a plurality of patches having different fields of view from the one or more medical images.

10. The apparatus of claim **9**, wherein the means for extracting a plurality of patches having different fields of view from the one or more medical images comprises:

means for cropping the one or more medical images at different dimensions.

11. The apparatus of claim **8**, wherein the means for extracting one or more patches associated with a candidate malignant lesion from one or more medical images comprises:

means for extracting a patch depicting the candidate malignant lesion from a particular image of the one or more medical images.

12. The apparatus of claim **8**, wherein the means for extracting one or more patches associated with a candidate malignant lesion from one or more medical images comprises:

means for extracting patches from images of the one or more medical images that neighbor the particular image.

13. The apparatus of claim **8**, further comprising:

means for detecting the candidate malignant lesion in the one or more medical images using a machine learning based detection network.

14. The apparatus of claim **8**, wherein the one or more medical images comprises multi-parametric magnetic resonance images.

15. A non-transitory computer readable medium storing computer program instructions, the computer program instructions when executed by a processor cause the processor to perform operations comprising:

extracting one or more patches associated with a candidate malignant lesion from one or more medical images;

classifying the candidate malignant lesion as being a true positive detection of a malignant lesion or a false positive detection of the malignant lesion based on the one or more extracted patches using a trained machine learning network; and

outputting results of the classification.

16. The non-transitory computer readable medium of claim **15**, wherein extracting one or more patches associated with a candidate malignant lesion from one or more medical images comprises:

extracting a plurality of patches having different fields of view from the one or more medical images.

17. The non-transitory computer readable medium of claim **16**, wherein extracting a plurality of patches having different fields of view from the one or more medical images comprises:

cropping the one or more medical images at different dimensions.

18. The non-transitory computer readable medium of claim **15**, wherein extracting one or more patches associated with a candidate malignant lesion from one or more medical images comprises:

extracting a patch depicting the candidate malignant lesion from a particular image of the one or more medical images.

19. The non-transitory computer readable medium of claim **15**, wherein extracting one or more patches associated with a candidate malignant lesion from one or more medical images comprises:

extracting patches from images of the one or more medical images that neighbor the particular image.

20. The non-transitory computer readable medium of claim **15**, further comprising: